IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claim 22 in accordance with the following:

1. (CANCELLED)

2. (PREVIOUSLY PRESENTED) The collimating lens as claimed in claim 3, wherein the collimating lens and the diffraction surface of the collimating lens have a positive power.

3. (PREVIOUSLY PRESENTED) A collimating lens to transform a ray of light from a light source into approximate parallel rays, comprising:

the collimating lens made of a single lens of plastic, the single lens having a refraction surface provided on one side and a diffraction surface provided on an opposite side, wherein a power of the diffraction surface is larger than a power of the refraction surface, and

the refraction surface and the diffraction surface have a power to satisfy a condition of:

$$-3 \leq \frac{K_d}{K_r} \leq -2$$

where, K_d is a power of the diffraction surface, and K_r is a power of the refraction surface

4. (ORIGINAL) The collimating lens as claimed in claim 3, wherein the refraction surface and the diffraction surface have the powers to satisfy a condition of:

$$\frac{K_d}{K_r} = -\frac{(2n + (n+1)(n^2 + 2))}{4n}$$

where, K_d is the power of the diffraction surface, K_r is the power of the refraction surface, and n is an index of refraction of the plastic that constitutes the collimating lens.

5. (PREVIOUSLY PRESENTED) The collimating lens as claimed in claim 3, wherein at least one of the refraction surface and the diffraction surface is provided as a non-spherical surface.

6-8. (CANCELLED)

9. (PREVIOUSLY PRESENTED) The collimating lens as claimed in claim 3, wherein the refraction surface and the diffraction surface have powers to satisfy a condition of;

$$\frac{K_d}{K_r} = -\frac{(2n + (n+1)(n^2+2))}{4n}$$

where, K_d is the power of the diffraction surface, K_r is the power of the refraction surface, and n is an index of refraction of the plastic that constitutes the collimating lens.

10. (CANCELLED)

11. (PREVIOUSLY PRESENTED) The collimating lens as claimed in claim 3, wherein both the refraction surface and the diffraction surface are provided as non-spherical surfaces.

12-15. (CANCELLED)

16. (PREVIOUSLY PRESENTED) The collimating lens as claimed in claim 18, wherein at least one of the refraction surface and the diffraction surface is provided as a spherical surface.

17. (PREVIOUSLY PRESENTED) The collimating lens as claimed in claim 3, wherein at least one of the refraction surface and the diffraction surface is provided as a spherical surface.

18. (PREVIOUSLY PRESENTED) A collimating lens to prevent variation of focal distance, comprising:
a refraction surface provided on one side; and
a diffraction surface provided on an opposite side, wherein the refraction and diffraction surfaces prevent a power of the collimating lens from changes due to a change in temperature,

where a power of the diffraction surface is larger than a power of the refraction surface, and

the diffraction surface has positive power and the power of the diffraction surface is larger than the power of the refraction surface by a difference which satisfies the condition of:

$$-3 \le \frac{K_d}{K_r} \le -2$$

where, K_d is the power of the diffraction surface, and K_r is the power of the refraction surface.

19. (PREVIOUSLY PRESENTED) The collimating lens as claimed in claim 18, the collimating lens is made of a single lens.

20. (PREVIOUSLY PRESENTED) The collimating lens as claimed in claim 18, the collimating lens is made of at least one plastic lens.

21. (CANCELLED)

22. (CANCELLED)